

09/473,713

=> d his

(FILE 'HOME' ENTERED AT 13:11:34 ON 27 JUN 2001)

FILE 'REGISTRY' ENTERED AT 13:11:39 ON 27 JUN 2001

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 2 S L1 SSS FULL

FILE 'CAPLUS, USPATFULL' ENTERED AT 13:12:25 ON 27 JUN 2001

L4 2 S L3
L5 2 DUP REM L4 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 13:14:31 ON 27 JUN 2001

FILE 'STNGUIDE' ENTERED AT 13:22:37 ON 27 JUN 2001

FILE 'REGISTRY' ENTERED AT 13:27:11 ON 27 JUN 2001

L6 STRUCTURE UPLOADED
L7 0 S L6 SSS SAM
L8 0 S L6 SSS FULL
L9 STRUCTURE UPLOADED
L10 1 S L9 SSS FULL

FILE 'CAPLUS' ENTERED AT 13:29:19 ON 27 JUN 2001

L11 4 S L10

FILE 'REGISTRY' ENTERED AT 13:30:55 ON 27 JUN 2001

FILE 'REGISTRY' ENTERED AT 13:31:02 ON 27 JUN 2001

L12 1 S 179677-60-2/RN

FILE 'STNGUIDE' ENTERED AT 13:35:30 ON 27 JUN 2001

FILE 'CAPLUS' ENTERED AT 13:38:43 ON 27 JUN 2001

=> s l11 and (sedat? or anesthe? or anxiety)

15247 SEDAT?

87655 ANESTHE?

7346 ANXIETY

L13 0 L11 AND (SEDAT? OR ANESTHE? OR ANXIETY)

Delacroix

09/473,713

=> s 110

L11 4 L10

=> d 111 abs ibib hitstr 1-4

L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS

AB Compds. and methods are described for mitigating neurodegeneration, effecting neuroprotection, and/or effecting cognition enhancement. Neurol. or cognitive conditions are treated by administering to a subject an effective amt. of a therapeutic compd. comprising a nitrate ester, or a

pharmaceutically acceptable salt or ester thereof.

ACCESSION NUMBER: 2000:666584 CAPLUS

DOCUMENT NUMBER: 133:232855

TITLE: Nitrate esters, their preparation, and their use for treatment of neurological conditions

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000054756	A2	20000921	WO 2000-CA280	20000315
WO 2000054756	A3	20010125		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-267379 A 19990315

OTHER SOURCE(S): MARPAT 133:232855

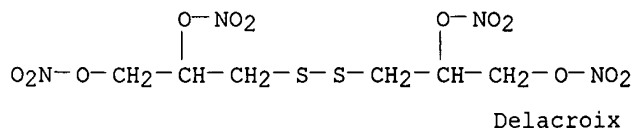
IT 179677-60-2P

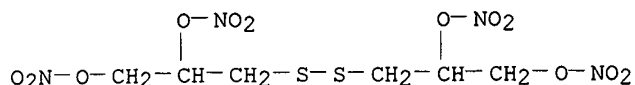
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nitrate esters, prepn., and use for treatment of neurol. conditions)

RN 179677-60-2 CAPLUS

CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)





L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS

AB Aliph. nitrate esters having a sulfur or phosphorus atom .beta. or .gamma.

to a nitrate group and their congeners having efficacy as neuroprotective agents are described. Preferred nitrate esters may be synthesized by nitration of a 3-bromo-1,2-propanediol, and subsequent reaction to yield the desired mono-, di- or tetra-nitrate ester.

ACCESSION NUMBER: 1999:193850 CAPLUS

DOCUMENT NUMBER: 130:232510

TITLE: Nitrate esters, preparation thereof, and use for treatment of neurological conditions

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University At Kingston, Can.

SOURCE: U.S., 25 pp., Cont.-in-part of U.S. 5,807,847.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5883122	A	19990316	US 1997-867856	19970603
US 5807847	A	19980915	US 1996-658145	19960604

PRIORITY APPLN. INFO.: US 1996-658145 A2 19960604

OTHER SOURCE(S): CASREACT 130:232510; MARPAT 130:232510

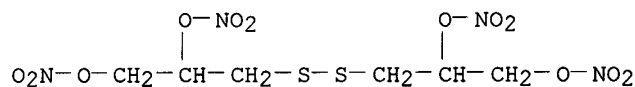
IT **179677-60-2P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nitrate ester prepn. and use for treatment of neurol. conditions)

RN 179677-60-2 CAPLUS

CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 24

REFERENCE(S): (4) Anon; JP 01304353 1989 CAPLUS

(5) Anon; CA 2075988 1991 CAPLUS

(6) Anon; CA 2158368 1994 CAPLUS

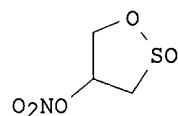
(7) Anon; WO 9406428 1994 CAPLUS

(8) Anon; WO 9500477 1995 CAPLUS

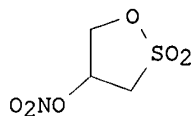
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS

GI



I



II

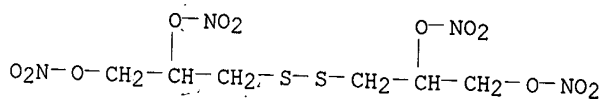
Delacroix

AB YXCR3R4CR1R2ONO2 [X = CH2, O, NH, NMe, CN, NHOH, N2H3, SCN, S, N3, SH, CO, SO, SO2, SO2M, SO3M, CO2M, CO2H, etc.; Y = SCN, SR4, SO2M, SO3M, PO3HM, CN, N3, CO2M, null, etc.; M = H, Na, K, ammonium; R2, R4 = H, ONO2, alkyl, alkyl nitrate, acyl; R1, R3 = H, alkyl; R1R3 = chain which may include 1 O to form (HO-substituted) pentosyl, hexosyl, cyclopentyl, or cyclohexyl rings], were prepd. Thus, bis(2,3-dihydroxypropyl)disulfide was added to HNO3/H2SO4/CH2Cl2 to give 10% sultine (I) and 5% sultone (II). I and II caused relaxation of rat aortic tissue strips with IC50 = 3.4 .mu.M and 9.1 .mu.M, resp.

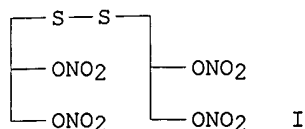
ACCESSION NUMBER: 1998:1452 CAPLUS
DOCUMENT NUMBER: 128:61515
TITLE: Preparation of aliphatic nitrate esters for treatment of neurological conditions.
INVENTOR(S): Thatcher, Gregory R.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem
PATENT ASSIGNEE(S): Queen's University At Kingston, Can.; Thatcher, Gregory R.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9746521	A1	19971211	WO 1997-CA372	19970530
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5807847	A	19980915	US 1996-658145	19960604
AU 9728839	A1	19980105	AU 1997-28839	19970530
AU 725046	B2	20001005		
EP 915842	A1	19990519	EP 1997-922791	19970530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9709635	A	19990810	BR 1997-9635	19970530
JP 2000511197	T2	20000829	JP 1998-500039	19970530
PRIORITY APPLN. INFO.: US 1996-658145 A2 19960604 WO 1997-CA372 W 19970530				
OTHER SOURCE(S): MARPAT 128:61515				

IT 179677-60-2P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of aliph. nitrate esters for treatment of neurol. conditions)
RN 179677-60-2 CAPLUS
CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)



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AB The syntheses of four novel sulfur-contg. nitrate esters, e.g. I, are reported, together with data for guanylyl cyclase activation and tissue relaxation.

ACCESSION NUMBER: 1996:358169 CAPLUS
DOCUMENT NUMBER: 125:143161
TITLE: Synthesis of novel organic nitrate esters: guanylate cyclase activation and tissue relaxation
AUTHOR(S): Yang, Kexin; Artz, Jennifer D.; Lock, Jodi; Sanchez, Cristina; Bennett, Brian M.; Fraser, Amy B.;

Thatcher,

GREGORY R. J.
CORPORATE SOURCE: Department Chemistry, Queen's University, Kingston, ON, K7L 3N6, Can.

SOURCE: J. Chem. Soc., Perkin Trans. 1 (1996), (11), 1073-1075

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

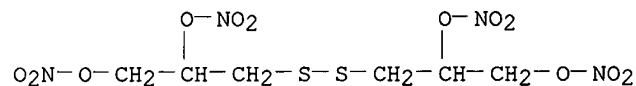
LANGUAGE: English

IT 179677-60-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis of novel org. nitrate esters guanylate cyclase activation and tissue relaxation)

RN 179677-60-2 CAPLUS

CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)



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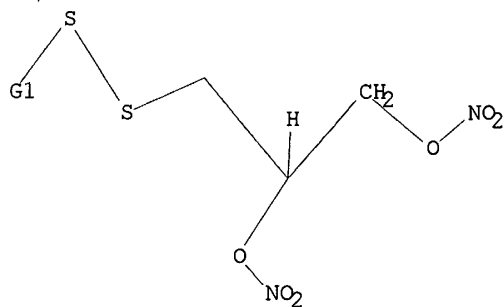
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L6 STRUCTURE UPLOADED

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L6 HAS NO ANSWERS

L6 STR



G1 Cy,Hy

Structure attributes must be viewed using STN Express query preparation.

=> s l6 sss sam

SAMPLE SEARCH INITIATED 13:27:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 0 TO 0
PROJECTED ANSWERS: 0 TO 0

L7 0 SEA SSS SAM L6

=> s l6 sss full

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FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L8 0 SEA SSS FUL L6

=>

Delacroix

Uploading 7132.str

L9 STRUCTURE UPLOADED

=> s 19 sss full

FULL SEARCH INITIATED 13:29:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.02

L10 1 SEA SSS FUL L9

=> file caplus

09/473,713

=>

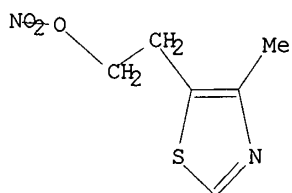
Uploading 713.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Selected species (see paper #9)

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

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SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:12:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

L3 2 SEA SSS FUL L1

=> file caplus, uspatfull

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09/473,713

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
AN 2000:666584 CAPLUS
DN 133:232855
TI Nitrate esters, their preparation, and their use for treatment of
neurological conditions
IN Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman,
Roland J.; Jhamandas, Khem
PA Queen's University at Kingston, Can.
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000054756	A2	20000921	WO 2000-CA280	20000315
	WO 2000054756	A3	20010125		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 1999-267379	A	19990315		
OS	MARPAT 133:232855				

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
AN 1999:667043 CAPLUS
DN 132:35323
TI Nitroester chemistry. 21. Synthesis of olefins from nitroesters
AU Kochergin, P. M.; Blinova, L. S.; Karpov, G. A.; Mikhailova, I. S.;
Aleksandrova, E. V.; Korol, O. V.
CS Center for Drug Chemistry-All-Russia Research Institute of Pharmaceutical
Chemistry, Moscow, Russia
SO Pharm. Chem. J. (1999), 33(1), 41-44
CODEN: PCJOAU; ISSN: 0091-150X
PB Consultants Bureau
DT Journal
LA English
RE.CNT 23
RE
(3) Baker, J; J Chem Soc 1955, P616 CAPLUS
(8) Kochergin, P; Khim-Farm Zh 1998, V32(8), P38 CAPLUS
(9) Kochergin, P; Khim-Farm Zh 1998, V32(8), P38 CAPLUS
(11) Kochergin, P; Zh Org Khim 1994, V30(10), P1478 CAPLUS
(13) Levy, N; J Chem Soc 1946, P1096 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

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(FILE 'HOME' ENTERED AT 13:11:34 ON 27 JUN 2001)

FILE 'REGISTRY' ENTERED AT 13:11:39 ON 27 JUN 2001

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 2 S L1 SSS FULL

FILE 'CAPLUS, USPATFULL' ENTERED AT 13:12:25 ON 27 JUN 2001

L4 2 S L3
L5 2 DUP REM L4 (0 DUPLICATES REMOVED)

=> d 15 abs ibib hitstr 1 2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
AB Comps. and methods are described for mitigating neurodegeneration, effecting neuroprotection, and/or effecting cognition enhancement. Neurol. or cognitive conditions are treated by administering to a subject an effective amt. of a therapeutic compd. comprising a nitrate ester, or

a pharmaceutically acceptable salt or ester thereof.

ACCESSION NUMBER: 2000:666584 CAPLUS
DOCUMENT NUMBER: 133:232855
TITLE: Nitrate esters, their preparation, and their use for treatment of neurological conditions
INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem
PATENT ASSIGNEE(S): Queen's University at Kingston, Can.
SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000054756	A2	20000921	WO 2000-CA280	20000315
WO 2000054756	A3	20010125		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

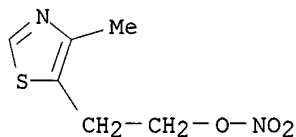
PRIORITY APPLN. INFO.: US 1999-267379 A 19990315
OTHER SOURCE(S): MARPAT 133:232855

IT 252568-49-3P

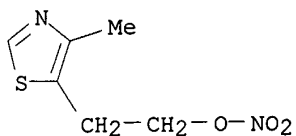
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nitrate esters, prepn., and use for treatment of neurol. conditions)

RN 252568-49-3 CAPLUS

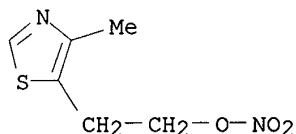
CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)



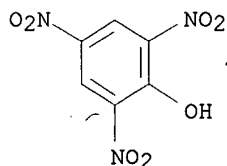
Delacroix



L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
 AB Treating nitrates, e.g. 2,4-(O₂N)2C₆H₃CH₂CH₂ONO₂, with NaOH/EtOH gave alkenes, e.g., 2,4-(O₂N)2C₆H₃CH:CH₂.
 ACCESSION NUMBER: 1999:667043 CAPLUS
 DOCUMENT NUMBER: 132:35323
 TITLE: Nitroester chemistry. 21. Synthesis of olefins from nitroesters
 AUTHOR(S): Kochergin, P. M.; Blinova, L. S.; Karpov, G. A.; Mikhailova, I. S.; Aleksandrova, E. V.; Korol, O. V.
 CORPORATE SOURCE: Center for Drug Chemistry-All-Russia Research
 SOURCE: Institute of Pharmaceutical Chemistry, Moscow, Russia
 Pharm. Chem. J. (1999), 33(1), 41-44
 CODEN: PCJOAU; ISSN: 0091-150X
 PUBLISHER: Consultants Bureau
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT **252568-52-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 252568-52-8 CAPLUS
 CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester), compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 252568-49-3
 CMF C6 H8 N2 O3 S

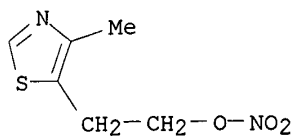


CM 2
 CRN 88-89-1
 CMF C6 H3 N3 O7



IT **252568-49-3P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of olefins from nitro esters)
 RN 252568-49-3 CAPLUS
 CN 5-Thiazoleethanol, 4-methyl-, nitrate (ester) (9CI) (CA INDEX NAME)

Delacroix



REFERENCE COUNT:
REFERENCE(S):

- 23
(3) Baker, J; J Chem Soc 1955, P616 CAPLUS
(8) Kochergin, P; Khim-Farm Zh 1998, V32(8), P38
CAPLUS
(9) Kochergin, P; Khim-Farm Zh 1998, V32(8), P38
CAPLUS
(11) Kochergin, P; Zh Org Khim 1994, V30(10), P1478
CAPLUS
(13) Levy, N; J Chem Soc 1946, P1096 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

09/473,713

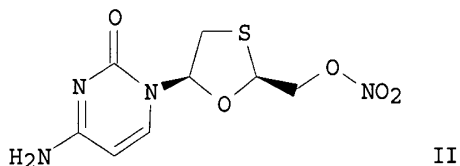
=> s 17

L8 3 L7

=> d l8 abs ibib hitstr 1-3

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

GI



AB Title compds. O2NO-E-F-G [E, F, G = org. radicals; F, G = unsubstituted, unsubstituted pyridyl; when E = alkyl, F, G = not both alkyl radicals bearing nitrate groups or an O linkage; I] were prepd. Examples include 7 bioassays and 13 synthetic examples. E.g., 2',3'-dideoxy-3-thiocytosine was nitrated (Ac2O, HNO3, -30.degree.C, 10 min) gave II in 52% yield. Certain examples I were shown to activate guanylyl cyclase. The invention is useful for treatment of neurol. or cognitive conditions.

ACCESSION NUMBER: 2001:792327 CAPLUS

DOCUMENT NUMBER: 135:339273

TITLE: Nitrate esters, their preparation and use for treatment of neurological conditions

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Boegman, Roland J.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University At Kingston, Can.

SOURCE: U.S., 57 pp., Cont.-in-part of U.S. 5,883,122.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6310052	B1	20011030	US 1999-267379	19990315
US 5807847	A	19980915	US 1996-658145	19960604
US 5883122	A	19990316	US 1997-867856	19970603
WO 2000054756	A2	20000921	WO 2000-CA280	20000315
WO 2000054756	A3	20010125		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1163029	A2	20011219	EP 2000-910456	20000315
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

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IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.:

US 1996-658145 A2 19960604

US 1997-867856 A2 19970603

US 1999-267379 A 19990315

WO 2000-CA280 W 20000315

OTHER SOURCE(S): MARPAT 135:339273

IT 294191-07-4

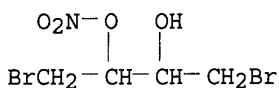
RL: BAC (Biological activity or effector, except adverse); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(nitrate esters, prepn., and use for treatment of neurol. conditions)

RN 294191-07-4 CAPLUS

CN 2,3-Butanediol, 1,4-dibromo-, mononitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT:

95

REFERENCE(S):

(1) Abe, K; Eur J Pharmacol 1998, V347, P145 CAPLUS

(5) Anon; JP 01304353 1989 CAPLUS

(8) Anon; CA 2158368 1994 CAPLUS

(10) Anon; WO 9500477 1995 CAPLUS

(11) Anon; EP 0882716 A 1998 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting sedation in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

ACCESSION NUMBER: 2001:507519 CAPLUS

DOCUMENT NUMBER: 135:92207

TITLE: Synthesis, methods and compositions of organic nitrates for mitigating pain

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-473713 A2 19991229

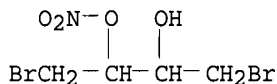
OTHER SOURCE(S): MARPAT 135:92207

IT 294191-07-4P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)

RN 294191-07-4 CAPLUS

CN 2,3-Butanediol, 1,4-dibromo-, mononitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 43

REFERENCE(S): (1) Aley; J Neurosci 1998, V18, P7008 CAPLUS
(2) Artz, J; Chem Res Toxicol 1998, V11, P1393 CAPLUS
(3) Azuhata, T; Synthesis 1983, P916 CAPLUS
(5) Barger, S; J Neurochem 1995, V64, P2087 CAPLUS
(6) Bennett; Can J Physiol Pharmacol 1992, V70, P1297
CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS

AB Compds. and methods are described for mitigating neurodegeneration,
effecting neuroprotection, and/or effecting cognition enhancement.
Neurol. or cognitive conditions are treated by administering to a subject
an effective amt. of a therapeutic compd. comprising a nitrate ester, or a
pharmaceutically acceptable salt or ester thereof.

ACCESSION NUMBER: 2000:666584 CAPLUS

DOCUMENT NUMBER: 133:232855

TITLE: Nitrate esters, their preparation, and their use for
treatment of neurological conditions

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds,
James N.; Boegman, Roland J.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

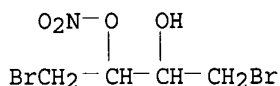
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000054756	A2	20000921	WO 2000-CA280	20000315
WO 2000054756	A3	20010125		

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IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM

09/473,713

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6310052 B1 20011030 US 1999-267379 19990315
EP 1163029 A2 20011219 EP 2000-910456 20000315
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.: US 1999-267379 A 19990315
US 1996-658145 A2 19960604
US 1997-867856 A2 19970603
WO 2000-CA280 W 20000315
OTHER SOURCE(S): MARPAT 133:232855
IT 294191-07-4
RL: BAC (Biological activity or effector, except adverse); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(nitrate esters, prepn., and use for treatment of neurol. conditions)
RN 294191-07-4 CAPLUS
CN 2,3-Butanediol, 1,4-dibromo-, mononitrate (9CI) (CA INDEX NAME)



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FILE 'REGISTRY' ENTERED AT 01:07:32 ON 11 JAN 2002
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L7 1 S L6 SSS FULL
FILE 'CAPLUS' ENTERED AT 01:08:11 ON 11 JAN 2002
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6815 ANXIOLYT?
94775 ANESTH?
0 AENESTH?
L9 1 L8 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR AENESTH?)

09/473,713

=> d 19 abs ibib kwic hitstr 1

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

ACCESSION NUMBER: 2001:507519 CAPLUS

DOCUMENT NUMBER: 135:92207

TITLE: Synthesis, methods and compositions of organic nitrates for mitigating pain

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 1999-473713 A2 19991229

OTHER SOURCE(S): MARPAT 135:92207

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which. . .

ST org nitrate prepn analgesic **sedative**; pain treatment
inflammation mitigation org nitrate

IT Analgesics

Hypnotics and **Sedatives**

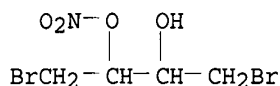
Pain

(synthesis, methods and compns. of org. nitrates for mitigating pain)

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109967-12-6P	179677-60-2P	220046-01-5P	220046-02-6P	252568-49-3P
294191-00-7P	294191-03-0P	294191-05-2P	294191-06-3P	
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RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)
IT 294191-07-4P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)
RN 294191-07-4 CAPLUS
CN 2,3-Butanediol, 1,4-dibromo-, mononitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 43
REFERENCE(S): (1) Aley; J Neurosci 1998, V18, P7008 CAPLUS
(2) Artz, J; Chem Res Toxicol 1998, V11, P1393 CAPLUS
(3) Azuhata, T; Synthesis 1983, P916 CAPLUS
(5) Barger, S; J Neurochem 1995, V64, P2087 CAPLUS
(6) Bennett; Can J Physiol Pharmacol 1992, V70, P1297 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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16064 SEDAT?
7878 ANXIETY
6815 ANXIOLYT?
94775 ANESTH?
1021 ANAESTH?
L10 1 L8 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR ANAESTH?)

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L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.
ACCESSION NUMBER: 2001:507519 CAPLUS
DOCUMENT NUMBER: 135:92207
TITLE: Synthesis, methods and compositions of organic nitrates for mitigating pain
INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds,

09/473,713

PATENT ASSIGNEE(S): James N.; Jhamandas, Khem
SOURCE: Queen's University at Kingston, Can.
PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

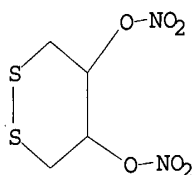
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1999-473713	A2 19991229
OTHER SOURCE(S):			MARPAT 135:92207	
REFERENCE COUNT:			43	
REFERENCE(S):			(1) Aley; J Neurosci 1998, V18, P7008 CAPLUS (2) Artz, J; Chem Res Toxicol 1998, V11, P1393 CAPLUS (3) Azuhata, T; Synthesis 1983, P916 CAPLUS (5) Barger, S; J Neurochem 1995, V64, P2087 CAPLUS (6) Bennett; Can J Physiol Pharmacol 1992, V70, P1297 CAPLUS	
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

09/473,713

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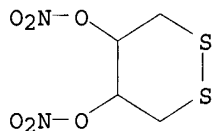
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SEARCH TIME: 00.00.01

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L12 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS
RN 294191-11-0 REGISTRY
CN 1,2-Dithiane-4,5-diol, dinitrate (9CI) (CA INDEX NAME)
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MF C4 H6 N2 O6 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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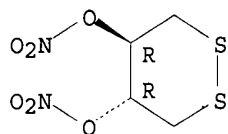
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L12 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2002 ACS

09/473,713

RN 213981-18-1 REGISTRY
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FS STEREOSEARCH
MF C4 H6 N2 O6 S2
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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09/473,713

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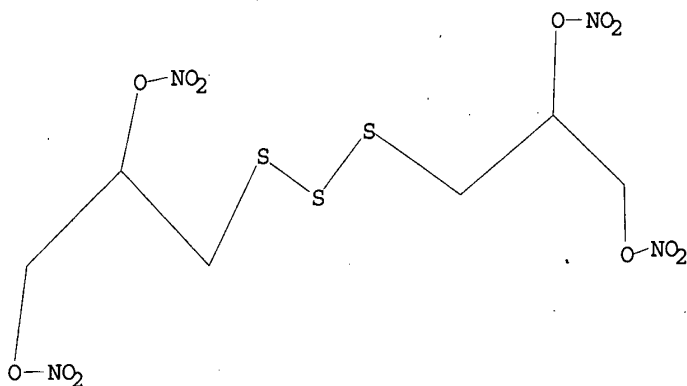
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L4 HAS NO ANSWERS

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Structure attributes must be viewed using STN Express query preparation.

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SEARCH TIME: 00.00.01

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L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 349487-34-9 REGISTRY

CN 1,2-Propanediol, 3,3'-trithiobis-, tetranitrate (9CI) (CA INDEX NAME)

FS 3D CONCORD

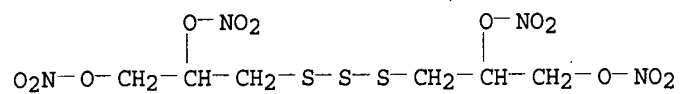
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SR CA

LC STN Files: CA, CAPLUS, TOXCENTER



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2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

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09/473,713

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L7 2 L6

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L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

AB NO is produced endogenously from arginine by the action of NO synthase, and exogenously by nitrovasodilators, including org. nitrates and nitrites. NO has been proposed as a cytotoxic and cytoprotective agent. There is strong evidence that NO acts as an apparent antioxidant in inhibiting lipid peroxidn., via chain termination, and interestingly lipid nitrates and nitrites have been proposed to be products of this chain termination. Both pro- and antioxidant mechanisms may be drawn for nitrates and nitrites; therefore, their effects on lipid peroxidn. were measured in two systems, using tocopherol, thiol, and an NO donor for comparison: (1) rat cerebrocortical synaptosomes with Fe(II)-induced lipid peroxidn. measured by thiobarbituric acid reactive substances (TBARS), and (2) phospholipid liposomes with an azo-initiator induction system, quantified by a fluorescent probe of peroxide formation. In contrast to the classical nitrate nitroglycerin, novel nitrates which release NO on reaction with thiols and two novel nitrates which spontaneously generate NO in aq. soln. inhibited lipid peroxidn. I-Amyl nitrite inhibited lipid peroxidn., and its properties were further studied with ESR spectroscopy. The data show that classical nitrites and novel nitrates are not prooxidants, but inhibit lipid peroxidn.

ACCESSION NUMBER: 2002:422174 CAPLUS

DOCUMENT NUMBER: 137:104935

TITLE: Inhibition of Lipid Peroxidation in Synaptosomes and Liposomes by Nitrates and Nitrites

AUTHOR(S): Nicolescu, Adrian C.; Zavorin, Sergei I.; Turro, Nicholas J.; Reynolds, James N.; Thatcher, Gregory R. J.

CORPORATE SOURCE: Department of Chemistry and Department of Pharmacology Toxicology, Queen's University, Kingston, ON, K7L 3N6, Can.

SOURCE: Chemical Research in Toxicology (2002), 15(7), 985-998
CODEN: CRTOEC; ISSN: 0893-228X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

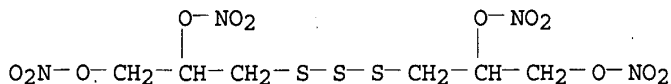
LANGUAGE: English

IT 349487-34-9P

RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(inhibition of lipid peroxidn. in synaptosomes and liposomes by nitrates and nitrites)

RN 349487-34-9 CAPLUS

CN 1,2-Propanediol, 3,3'-trithiobis-, tetranitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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09/473,713

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting sedation in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

ACCESSION NUMBER: 2001:507519 CAPLUS

DOCUMENT NUMBER: 135:92207

TITLE: Synthesis, methods and compositions of organic nitrates for mitigating pain

INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
WO 2001049275	A3	20011213		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1246625	A2	20021009	EP 2000-986925	20001227
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
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			WO 2000-CA1523	W 20001227

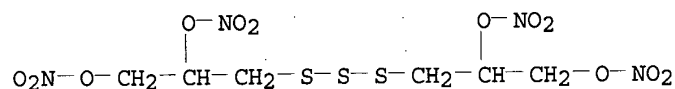
OTHER SOURCE(S): MARPAT 135:92207

IT 349487-34-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)

RN 349487-34-9 CAPLUS

CN 1,2-Propanediol, 3,3'-trithiobis-, tetranitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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09/473,713

=>

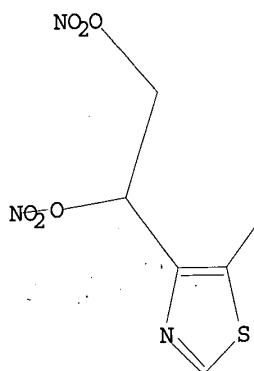
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L1 HAS NO ANSWERS

L1 STR



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SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

100.0% PROCESSED 2 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 0 TO 0

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=> s l1 sss full

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100.0% PROCESSED 35 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

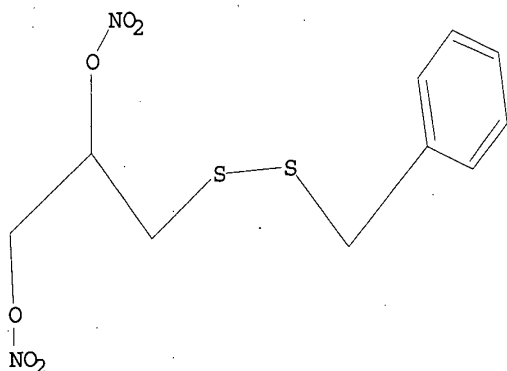
L3 0 SEA SSS FUL L1

09/473,713

=> d l14

L14 HAS NO ANSWERS

L14 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 1 TO 80
PROJECTED ANSWERS: 0 TO 0

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100.0% PROCESSED 1 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

L16 0 SEA SSS FUL L14

09/473,713

=> d his

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FILE 'REGISTRY' ENTERED AT 14:57:29 ON 20 MAY 2003

L1 STRUCTURE UPLOADED

L2 0 S L1 SSS SAM

L3 0 S L1 SSS FULL

FILE 'CAOLD' ENTERED AT 14:59:21 ON 20 MAY 2003

L4 0 S L3

FILE 'STNGUIDE' ENTERED AT 14:59:28 ON 20 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:03:03 ON 20 MAY 2003

L5 STRUCTURE UPLOADED

L6 2 S L5 SSS SAM

L7 21 S L5 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:04:13 ON 20 MAY 2003

L8 1 S L7 AND (ANXIETY OR ANXIOLY OR ANXIOUS? OR SEDAT?)

FILE 'STNGUIDE' ENTERED AT 15:06:06 ON 20 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:09:07 ON 20 MAY 2003

L9 STRUCTURE UPLOADED

L10 0 S L9 SSS SAM

L11 1 S L9 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:09:55 ON 20 MAY 2003

=> s l11 and (anxiety or anxioly? or anxious? or sedat?)

9 L11

9758 ANXIETY

7985 ANXIOLY?

412 ANXIOUS?

17124 SEDAT?

L12 1 L11 AND (ANXIETY OR ANXIOLY? OR ANXIOUS? OR SEDAT?)

=> d l12 abs ibib kwic hitstr 1

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

ACCESSION NUMBER: 2001:507519 CAPLUS

DOCUMENT NUMBER: 135:92207

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INVENTOR(S): Thatcher, Gregory R. J.; Bennett, Brian M.; Reynolds, James N.; Jhamandas, Khem

PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 114 pp.

Delacroix

09/473,713

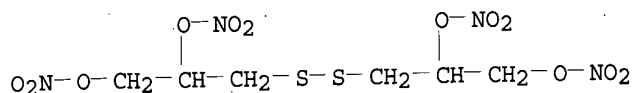
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
WO 2001049275	A3	20011213		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1246625	A2	20021009	EP 2000-986925	20001227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:		US 1999-473713 A2 19991229 WO 2000-CA1523 W 20001227		
OTHER SOURCE(S):		MARPAT 135:92207		
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ST	org nitrate prepn analgesic sedative ; pain treatment inflammation mitigation org nitrate			
IT	Analgesics Hypnotics and Sedatives Pain (synthesis, methods and compns. of org. nitrates for mitigating pain)			
IT	55-63-0P 2612-33-1P 17115-36-5P 65051-92-5P 98019-81-9P 109967-12-6P 179677-60-2P 220046-01-5P 220046-02-6P 252568-49-3P 294191-00-7P 294191-03-0P 294191-05-2P 294191-06-3P 294191-07-4P 294191-08-5P 294191-09-6P 294191-10-9P 294191-11-0P 294191-12-1P 294191-15-4P 349472-60-2P 349472-61-3P 349472-62-4P 349472-63-5P 349472-64-6P 349472-65-7P 349472-67-9P 349472-68-0P 349472-69-1P 349472-79-3P 349481-52-3P 349481-53-4P 349481-54-5P 349481-55-6P 349481-56-7P 349481-57-8P 349481-58-9P 349481-59-0P 349481-60-3P 349481-61-4P 349481-62-5P 349481-63-6P 349481-64-7P 349481-65-8P 349481-66-9P 349481-67-0P 349481-68-1P 349481-70-5P 349482-21-9P 349482-22-0P 349487-17-8P 349487-18-9P 349487-19-0P 349487-20-3P 349487-21-4P 349487-22-5P 349487-23-6P 349487-24-7P 349487-25-8P 349487-26-9P 349487-27-0P 349487-28-1P 349487-29-2P 349487-30-5P 349487-31-6P 349487-32-7P 349487-33-8P 349487-34-9P 349487-35-0P 349487-36-1P 349487-37-2P 349487-38-3P 349487-39-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis, methods and compns. of org. nitrates for mitigating pain)			
IT	179677-60-2P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)			

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09/473,713

(synthesis, methods and compns. of org. nitrates for mitigating pain)
RN 179677-60-2 CAPLUS
CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 17 and (anxiety or anxioly? or anxious? or sedat?)

1 L7
9758 ANXIETY
7985 ANXIOLY?
412 ANXIOUS?
17124 SEDAT?

L13 1 L7 AND (ANXIETY OR ANXIOLY? OR ANXIOUS? OR SEDAT?)

=> d l13 abs ibib kwic 1

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

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DOCUMENT NUMBER: 135:92207

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PATENT ASSIGNEE(S): Queen's University at Kingston, Can.

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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WO 2001049275	A2	20010712	WO 2000-CA1523	20001227
WO 2001049275	A3	20011213		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

09/473,713

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1246625 A2 20021009 EP 2000-986925 20001227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 1999-473713 A2 19991229
WO 2000-CA1523 W 20001227

OTHER SOURCE(S): MARPAT 135:92207
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Methods and therapeutic compds. for treating pain, mitigating
inflammation, effecting analgesia and/or effecting **sedation** in a
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ST org nitrate prepn analgesic **sedative**; pain treatment
inflammation mitigation org nitrate

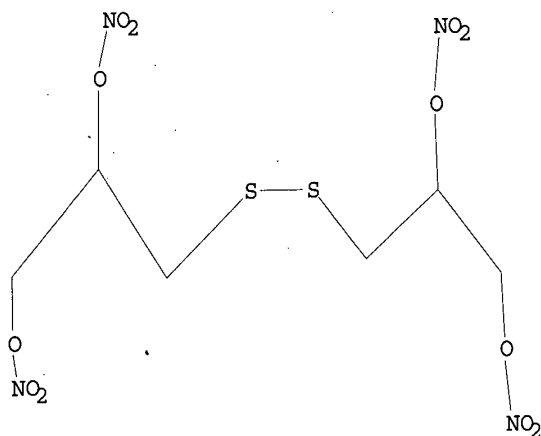
IT Analgesics
Hypnotics and **Sedatives**
Pain

(synthesis, methods and compns. of org. nitrates for mitigating pain)
IT 55-63-0P 2612-33-1P 17115-36-5P 65051-92-5P 98019-81-9P
109967-12-6P 179677-60-2P 220046-01-5P 220046-02-6P 252568-49-3P
294191-00-7P 294191-03-0P 294191-05-2P 294191-06-3P 294191-07-4P
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349487-35-0P **349487-36-1P** **349487-37-2P**
349487-38-3P **349487-39-4P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
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BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)

09/473,713

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L9 HAS NO ANSWERS
L9 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 0 TO 0

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100.0% PROCESSED 46 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L11 1 SEA SSS FUL L9

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L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 179677-60-2 REGISTRY
CN 1,2-Propanediol, 3,3'-dithiobis-, tetranitrate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN GT 715
FS 3D CONCORD

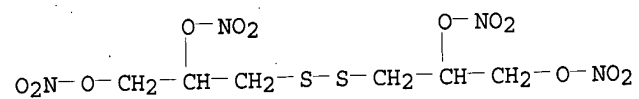
Delacroix

09/473,713

MF C6 H10 N4 O12 S2

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1957 TO DATE)

9 REFERENCES IN FILE CAPLUS (1957 TO DATE)

=> file caplus

09/473,713

=> d his

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FILE 'REGISTRY' ENTERED AT 14:57:29 ON 20 MAY 2003

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 0 S L1 SSS FULL

FILE 'CAOLD' ENTERED AT 14:59:21 ON 20 MAY 2003

L4 0 S L3

FILE 'STNGUIDE' ENTERED AT 14:59:28 ON 20 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:03:03 ON 20 MAY 2003

L5 STRUCTURE UPLOADED
L6 2 S L5 SSS SAM
L7 21 S L5 SSS FULL

FILE 'CAPLUS' ENTERED AT 15:04:13 ON 20 MAY 2003

=> s 17 and (anxiety or anxioly or anxious? or sedat?)

1 L7
9758 ANXIETY
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17124 SEDAT?

L8 1 L7 AND (ANXIETY OR ANXIOLY OR ANXIOUS? OR SEDAT?)

=> d 18 abs ibib kwic hitstr 1

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

AB Methods and therapeutic compds. for treating pain, mitigating inflammation, effecting analgesia and/or effecting **sedation** in a subject are described. A subject is administered an effective amt. of a therapeutic compd., e.g. 4-methylthiazole-5-Et nitrate (I), which is a nitrate ester. I shows a mean of 54.21 s at 10 mg/kg in scopolamine-impaired learning assay. Novel pharmaceutical compns. are also described.

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CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

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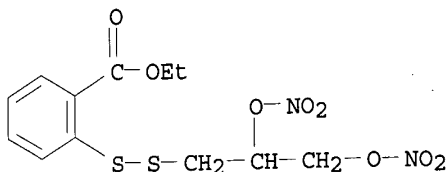
09/473,713

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HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1246625 A2 20021009 EP 2000-986925 20001227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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inflammation mitigation org nitrate
IT Analgesics
Hypnotics and **Sedatives**
Pain
(synthesis, methods and compns. of org. nitrates for mitigating pain)
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294191-08-5P 294191-09-6P 294191-10-9P 294191-11-0P 294191-12-1P
294191-15-4P 349472-60-2P 349472-61-3P **349472-62-4P**
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349481-53-4P **349481-54-5P** **349481-55-6P**
349481-56-7P 349481-57-8P **349481-58-9P** **349481-59-0P**
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349487-30-5P 349487-31-6P 349487-32-7P 349487-33-8P 349487-34-9P
349487-35-0P **349487-36-1P** **349487-37-2P**
349487-38-3P **349487-39-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)
IT **349472-62-4P** **349472-64-6P** **349472-65-7P**
349472-79-3P **349481-52-3P** **349481-53-4P**
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349481-62-5P **349481-64-7P** **349481-70-5P**
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, methods and compns. of org. nitrates for mitigating pain)

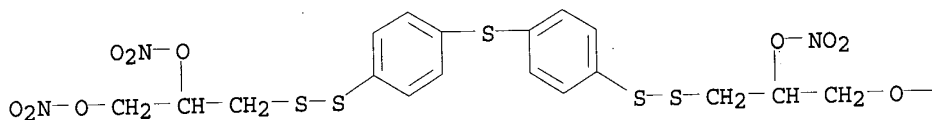
Delacroix

09/473,713

RN 349472-62-4 CAPLUS
CN Benzoic acid, 2-[[2,3-bis(nitrooxy)propyl]dithio]-, ethyl ester (9CI) (CA INDEX NAME)



RN 349472-64-6 CAPLUS
CN 1,2-Propanediol, 3,3'-[thiobis(4,1-phenylenedithio)]bis-, tetranitrate (9CI) (CA INDEX NAME)

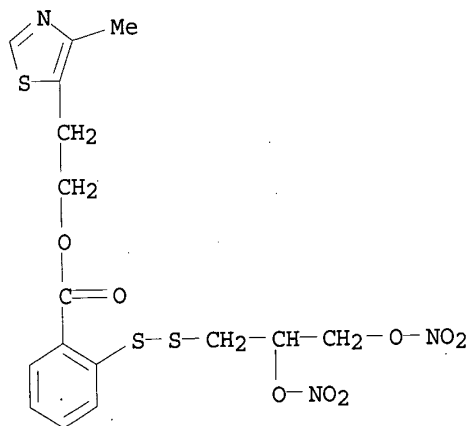


PAGE 1-A

PAGE 1-B

-NO₂

RN 349472-65-7 CAPLUS
CN Benzoic acid, 2-[[2,3-bis(nitrooxy)propyl]dithio]-, 2-(4-methyl-5-thiazolyl)ethyl ester (9CI) (CA INDEX NAME)

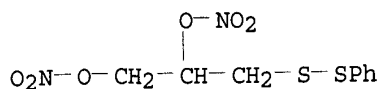


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09/473,713

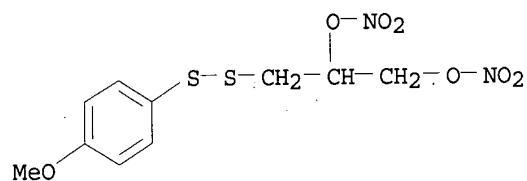
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CN 1,2-Propanediol, 3-(phenyldithio)-, dinitrate (9CI) (CA INDEX NAME)



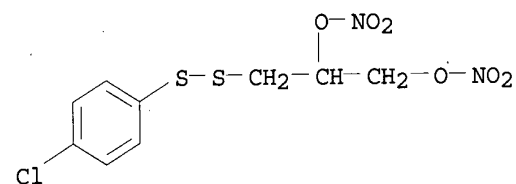
RN 349481-52-3 CAPLUS

CN 1,2-Propanediol, 3-[(4-methoxyphenyl)dithio]-, dinitrate (9CI) (CA INDEX NAME)



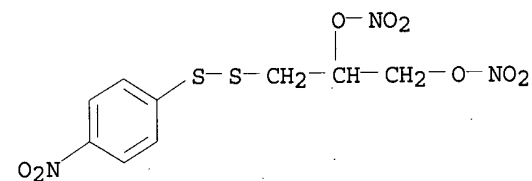
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CN 1,2-Propanediol, 3-[(4-chlorophenyl)dithio]-, dinitrate (9CI) (CA INDEX NAME)



RN 349481-54-5 CAPLUS

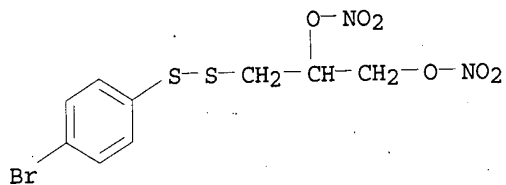
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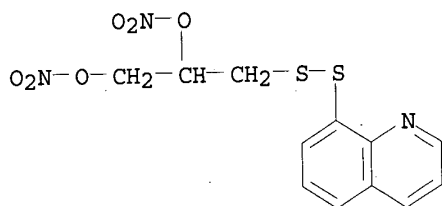
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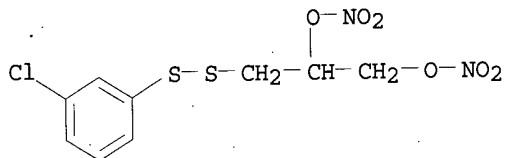
09/473,713



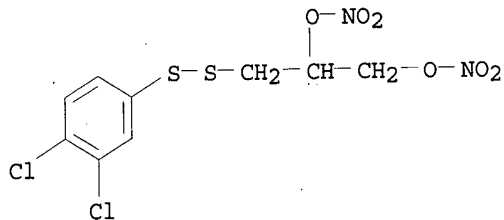
RN 349481-58-9 CAPLUS
CN 1,2-Propanediol, 3-(8-quinolinyldithio)-, dinitrate (ester) (9CI) (CA INDEX NAME)



RN 349481-59-0 CAPLUS
CN 1,2-Propanediol, 3-[(3-chlorophenyl)dithio]-, dinitrate (9CI) (CA INDEX NAME)

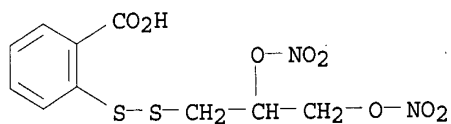


RN 349481-60-3 CAPLUS
CN 1,2-Propanediol, 3-[(3,4-dichlorophenyl)dithio]-, dinitrate (9CI) (CA INDEX NAME)

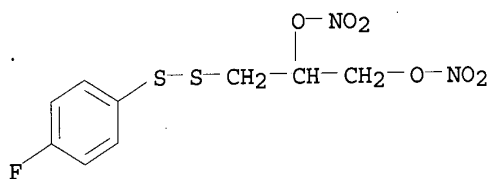


RN 349481-61-4 CAPLUS
CN Benzoic acid, 2-[[2,3-bis(nitrooxy)propyl]dithio]- (9CI) (CA INDEX NAME)

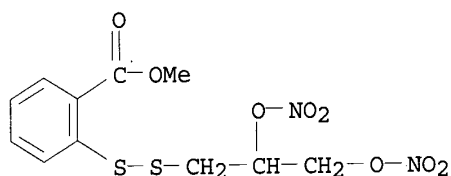
09/473,713



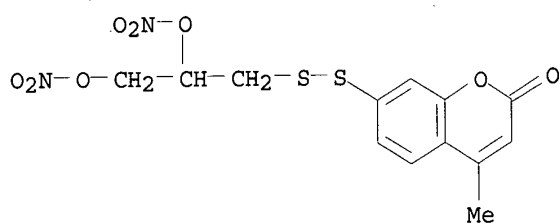
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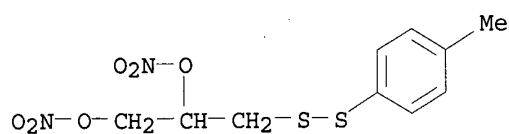
RN 349481-64-7 CAPLUS
CN Benzoic acid, 2-[[2,3-bis(nitrooxy)propyl]dithio]-, methyl ester (9CI) (CA INDEX NAME)



RN 349481-70-5 CAPLUS
CN 2H-1-Benzopyran-2-one, 7-[[2,3-bis(nitrooxy)propyl]dithio]-4-methyl- (9CI) (CA INDEX NAME)



RN 349482-22-0 CAPLUS
CN 1,2-Propanediol, 3-[(4-methylphenyl)dithio]-, dinitrate (9CI) (CA INDEX NAME)

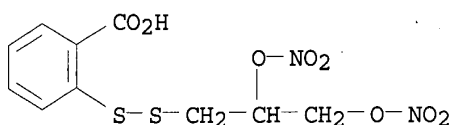


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09/473,713

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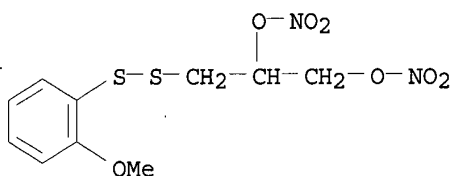
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● Na

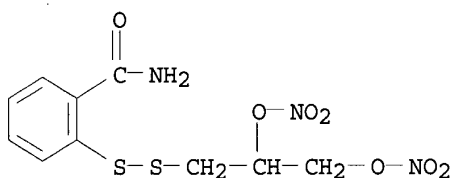
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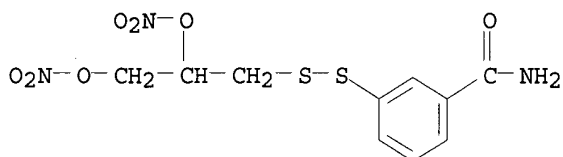
RN 349487-37-2 CAPLUS

CN Benzamide, 2-[[2,3-bis(nitrooxy)propyl]dithio]- (9CI) (CA INDEX NAME)



RN 349487-38-3 CAPLUS

CN Benzamide, 3-[[2,3-bis(nitrooxy)propyl]dithio]- (9CI) (CA INDEX NAME)

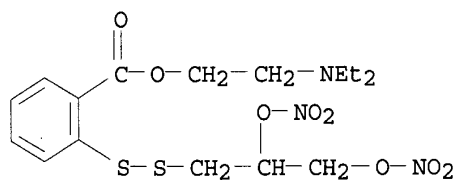


RN 349487-39-4 CAPLUS

CN Benzoic acid, 2-[[2,3-bis(nitrooxy)propyl]dithio]-, 2-(diethylamino)ethyl ester (9CI) (CA INDEX NAME)

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REFERENCE COUNT:

43

THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

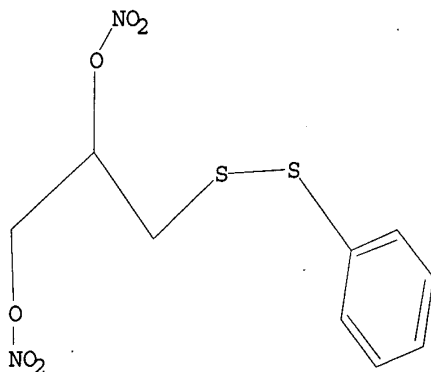
09/473,713

L5 STRUCTURE UPLOADED

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L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

100.0% PROCESSED 2 ITERATIONS
SEARCH TIME: 00.00.01

2 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 2 TO 124

PROJECTED ANSWERS: 2 TO 124

L6 2 SEA SSS SAM L5

=> s 15 sss full

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FULL SCREEN SEARCH COMPLETED - 46 TO ITERATE

100.0% PROCESSED 46 ITERATIONS
SEARCH TIME: 00.00.01

21 ANSWERS

L7 21 SEA SSS FUL L5

Delacroix

09/473,713

=>

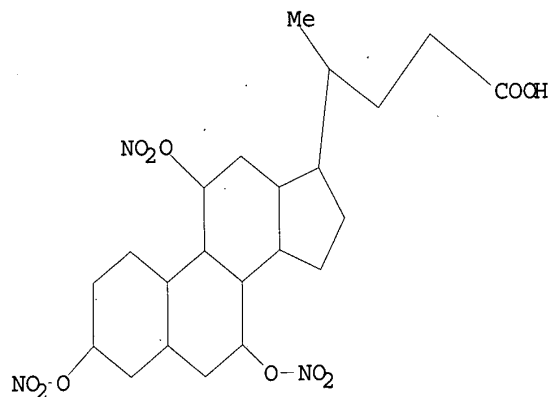
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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

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SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 14:58:25 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4 TO ITERATE

100.0% PROCESSED 4 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

09/473,713

=>

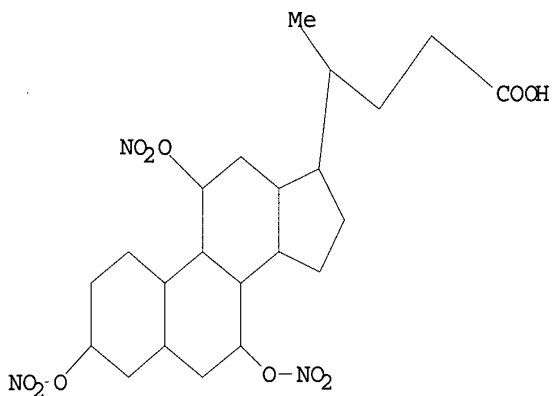
Uploading 7135.str

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L14 HAS NO ANSWERS

L14 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 01:23:40 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4 TO ITERATE

100.0% PROCESSED 4 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L15 0 SEA SSS FUL L14

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=>

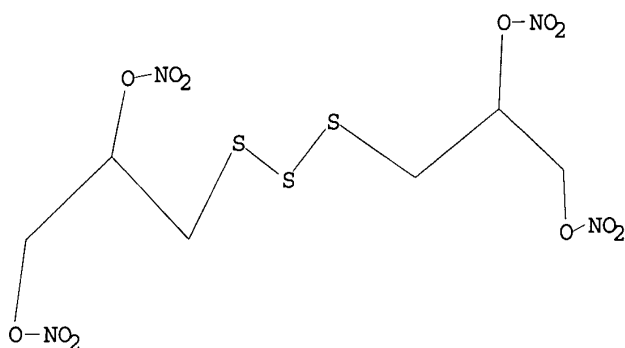
Uploading 7136.str

L16 STRUCTURE UPLOADED

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L16 HAS NO ANSWERS

L16 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l16 sss full

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FULL SCREEN SEARCH COMPLETED - 46 TO ITERATE

100.0% PROCESSED 46 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L17 1 SEA SSS FUL L16

=> d l17

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 349487-34-9 REGISTRY

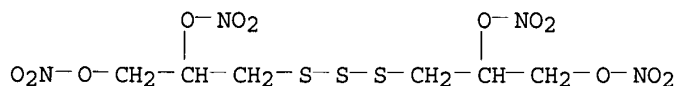
CN 1,2-Propanediol, 3,3'-trithiobis-, tetranitrate (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C6 H10 N4 O12 S3

SR CA

LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

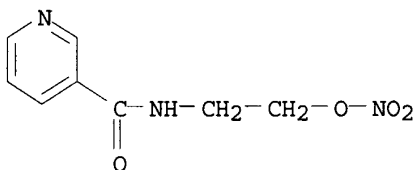
09/473,713

=> file caplus

09/473,713

=> d l11

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 65141-46-0 REGISTRY
CN 3-Pyridinecarboxamide, N-[2-(nitrooxy)ethyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-Nicotinamidoethyl nitrate
CN N-(2-Hydroxyethyl)nicotinamide nitrate
CN N-(2-Hydroxyethyl)nicotinamide nitrate ester
CN N-(2-Nitrooxyethyl)nicotinamide
CN **Nicorandil**
CN SG 75
CN Sigmart
CN U 64417
FS 3D CONCORD
MF C8 H9 N3 O4
CI COM
LC STN Files: ADISNEWS, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST,
CIN, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE,
MRCK*, MSDS-OHS, PHAR, PHARMASEARCH, PROMT, RTECS*, SYNTHLINE,
TOXCENTER, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

733 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
736 REFERENCES IN FILE CAPLUS (1967 TO DATE)

claw's
11, 14, 24
28

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L10 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2002 ACS

AB N-(2-hydroxyethyl)nicotinamide nitrate (nicorandil) or a salt thereof which prevents or ameliorates **anxiety** neurosis or panic disorders, or prevents or ameliorates the consecutive **anxiety**.
The compd. or its salt has an immediate action with little side effect.

ACCESSION NUMBER: 1997:240691 CAPLUS
DOCUMENT NUMBER: 126:229662
TITLE: Remedy for **anxiety** neurosis
INVENTOR(S): Miura, Toshiro
PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan; Miura, Toshiro
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

5905086

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706800	A1	19970227	WO 1996-JP2302	19960815 <--
W:				AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW:				KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9666705	A1	19970312	AU 1996-66705	19960815 <--
AU 710937	B2	19990930		
JP 09110695	A2	19970428	JP 1996-215588	19960815 <--
EP 846465	A1	19980610	EP 1996-926649	19960815 <--
R:				AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
US 5905086	A	19990518	US 1998-11668	19980213 <--
PRIORITY APPLN. INFO.:			JP 1995-208048	19950815
			WO 1996-JP2302	19960815

TI Remedy for **anxiety** neurosis

PI WO 9706800 A1 19970227

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706800	A1	19970227	WO 1996-JP2302	19960815 <--
W:				AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW:				KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9666705	A1	19970312	AU 1996-66705	19960815 <--
AU 710937	B2	19990930		
JP 09110695	A2	19970428	JP 1996-215588	19960815 <--
EP 846465	A1	19980610	EP 1996-926649	19960815 <--
R:				AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
US 5905086	A	19990518	US 1998-11668	19980213 <--
AB				N-(2-hydroxyethyl)nicotinamide nitrate (nicorandil) or a salt thereof which prevents or ameliorates anxiety neurosis or panic disorders, or prevents or ameliorates the consecutive anxiety .

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The compd. or its salt has an immediate action with little side effect.

ST nicorandil **anxiety** neurosis treatment; **anxiolytic**
nicorandil **anxiety** neurosis

IT Mental disorders
(neurosis, **anxiety**; remedy for **anxiety** neurosis)

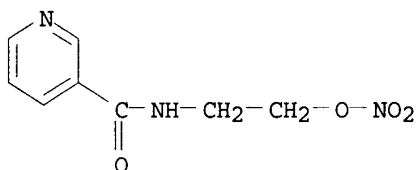
IT **Anxiety**
(neurosis; remedy for **anxiety** neurosis)

IT **Anxiolytics**
Panic disorder
Tablets (drug delivery systems)
(remedy for **anxiety** neurosis)

IT **65141-46-0**, Nicorandil
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(remedy for **anxiety** neurosis)

IT 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 69-65-8, D-Mannitol 69-72-7, Salicylic acid, biological studies 112-92-5, 1-Octadecanol 557-04-0, Magnesium stearate 1592-23-0, Calcium stearate 9004-64-2, Hydroxypropylcellulose 9004-67-5, Methylcellulose 9005-25-8, Corn starch, biological studies 9050-04-8, Calcium Carboxymethylcellulose 74811-65-7, Sodium croscarmellose
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(remedy for **anxiety** neurosis)

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 65141-46-0 REGISTRY
 CN 3-Pyridinecarboxamide, N-[2-(nitrooxy)ethyl]- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2-Nicotinamidoethyl nitrate
 CN N-(2-Hydroxyethyl)nicotinamide nitrate
 CN N-(2-Hydroxyethyl)nicotinamide nitrate ester
 CN N-(2-Nitrooxyethyl)nicotinamide
 CN **Nicorandil**
 CN SG 75
 CN Sigmart
 CN U 64417
 FS 3D CONCORD
 MF C8 H9 N3 O4
 CI COM
 LC STN Files: ADISNEWS, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST,
 CIN, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE,
 MRCK*, MSDS-OHS, PHAR, PHARMASEARCH, PROMT, RTECS*, SYNTHLINE,
 TOXCENTER, USAN, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**, WHO
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

770 REFERENCES IN FILE CA (1962 TO DATE)
 6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 772 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=>

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=> d his

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FILE 'REGISTRY' ENTERED AT 00:58:32 ON 11 JAN 2002
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L3 0 S L1 SSS FULL

FILE 'STNGUIDE' ENTERED AT 00:59:56 ON 11 JAN 2002

FILE 'REGISTRY' ENTERED AT 01:01:54 ON 11 JAN 2002
L4 STRUCTURE UPLOADED
L5 0 S L4 SSS FULL

FILE 'STNGUIDE' ENTERED AT 01:02:35 ON 11 JAN 2002

FILE 'REGISTRY' ENTERED AT 01:07:32 ON 11 JAN 2002
L6 STRUCTURE UPLOADED
L7 1 S L6 SSS FULL

FILE 'CAPLUS' ENTERED AT 01:08:11 ON 11 JAN 2002
L8 3 S L7
L9 1 S L8 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR AENESTH?
L10 1 S L8 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR ANAESTH?

FILE 'STNGUIDE' ENTERED AT 01:11:45 ON 11 JAN 2002

FILE 'REGISTRY' ENTERED AT 01:14:43 ON 11 JAN 2002
L11 STRUCTURE UPLOADED
L12 2 S L11 SSS FULL

FILE 'CAPLUS' ENTERED AT 01:16:31 ON 11 JAN 2002
L13 1 S L12 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR ANAESTH

FILE 'STNGUIDE' ENTERED AT 01:17:44 ON 11 JAN 2002

FILE 'REGISTRY' ENTERED AT 01:22:43 ON 11 JAN 2002
L14 STRUCTURE UPLOADED
L15 0 S L14 SSS FULL

FILE 'STNGUIDE' ENTERED AT 01:24:00 ON 11 JAN 2002

FILE 'REGISTRY' ENTERED AT 01:27:53 ON 11 JAN 2002
L16 STRUCTURE UPLOADED
L17 1 S L16 SSS FULL

FILE 'CAPLUS' ENTERED AT 01:28:35 ON 11 JAN 2002
L18 1 S L17 AND (SEDAT? OR ANXIETY OR ANXIOLYT? OR ANESTH? OR ANAESTH

FILE 'STNGUIDE' ENTERED AT 01:29:24 ON 11 JAN 2002

=>

09/473,713

=>

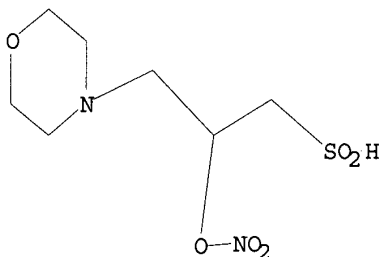
Uploading 713.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 00:59:09 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 00:59:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

09/473,713

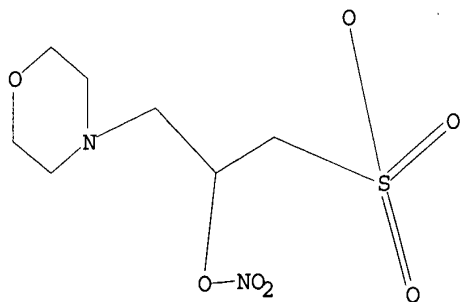
Uploading 7132.str

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l4 sss full

FULL SEARCH INITIATED 01:02:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L5 0 SEA SSS FUL L4

09/473,713

=>

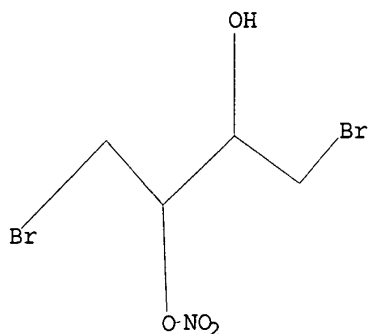
Uploading 7133.str

L6 STRUCTURE UPLOADED

=> d l6

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l6 sss full

FULL SEARCH INITIATED 01:07:56 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4 TO ITERATE

100.0% PROCESSED 4 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L7 1 SEA SSS FUL L6

=> d l7

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 294191-07-4 REGISTRY

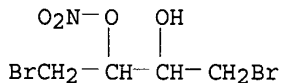
CN 2,3-Butanediol, 1,4-dibromo-, mononitrate (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C4 H7 Br2 N O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1967 TO DATE)

3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

Delacroix

09/473,713

=> file caplus